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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,995	01/28/2004	Yasuo Fukuda	CFA00046US	5020

7590 02/27/2007

Canon U.S.A. Inc.
Intellectual Property Department
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EXAMINER	
ABDI, AMARA	
ART UNIT	PAPER NUMBER
2609	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/766,995	FUKUDA ET AL.	
	Examiner	Art Unit	
	Amara Abdi	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01/28/2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *See Continuation Sheet*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :07/20/2005 01/28/2004.

DETAILED ACTION

Claim Objections

1. Claims 2-4,6-11 and 13-14 are objected to because of the following informalities:

(1) Claim 2, line 6, "**the** image" should be changed to "**the input** image"

(2) Claim 3, line 3, "**the** position" should be changed to "**a** position"; and "**the** size" should be changed to "**a** size"

(3) Claim 4, line 6, "**the** image" should be changed to "**the input** image"

(4) Claim 5, line 5, the examiner suggest inserting "**first**" between "**the**" and "**gradation**",

(4) Claim 6, line 3, "**a** correction" should be changed to "**the** correction"

(5) Claim 13, line 9, "**a** histogram" should be changed to "**the** histogram"

(6) Claim 14, line 3, "**a** correction" should be changed to "**the** correction"

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 5 and 13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed,

had possession of the claimed invention. There was a creation of the histogram for setting the first gradation, then the creation of second histogram for setting the second gradation. The second histogram was mentioned neither in the specification nor in the drawing. It's unclear if there is only one histogram for setting both the first and the second gradation, or there is a second histogram. The examiner interpreted that there is only one histogram. So the examination of theses claims based on one histogram.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 5-8,11 and 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura et al. (USPGPUB 2002/0075465).

(1) Regarding claims 5 and 13:

Nakamura et al. disclose an image processing method and system comprising:

creating a histogram of an input image (paragraph [0092], line 1-2);

setting a first gradation correcting condition accordance with the histogram (paragraph [0008], line 2-4); and

correcting the input image by using the gradation correcting condition (paragraph [0085], line 1-3);

extracting a specific object region from the corrected input image (paragraph [0120], line 1-7);

creating a histogram of the specific object region that has been extracted (paragraph [0092], line 1-2), (the examiner interpreted that the method of creating a histogram for the specific object is the same the histogram of the input image)

setting a second gradation correcting condition in accordance with the histogram of the specific object region that has been created (paragraph [0008], line 2-4); and correcting the image in the specific object region by using the set second gradation correcting condition (paragraph [0085], line 1-3), (the examiner interpreted that the method of setting the first gradation correcting condition is the same as the method of setting the second gradation correcting condition).

(2) Regarding claims 6 and 14:

Nakamura et al. disclose the image processing method and system, where the first gradation correcting condition (paragraph [0085], line 1-3) comprises performing a correction in accordance with a highlight and a shadow of the input image (paragraph [0092], line 4-5).

(3) Regarding claim 7:

Nakamura et al. disclose image processing method, further comprises a step of performing an exposure correction with respect to the input image (paragraph [008], line 5-6), (paragraph [0032], line 9-12) and (paragraph [0107], line 2-5).

(4) Regarding claim 8:

Nakamura et al. disclose the image processing method where the exposure correction step (paragraph [0032], line 9-12) comprises determining an exposure correcting condition response to an in-focus position included photographic information about the input image (paragraph [0111], line 3-9).

(5) Regarding claim 11:

Nakamura et al. disclose a recording medium on which a program for implementing the image processing method as recited in claim 6 is recorded (paragraph [0055], line 1-10), (the examiner interpreted that the transparent magnetic recording medium has the same function as the recording medium)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-4,9-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. in view of Yamada (USPGPUB 2002/0012463)

(1) Regarding claims 1 and 12:

Nakamura et al. discloses all the subject matter as in claims 5,6,7,8,11,13 and 14 above.

However, Nakamura does not discloses the image processing device and method comprising the detecting means for detecting whether a specific object is included in an input image as recited in claim 1 and 12.

Yamada teaches the image processing device and method (paragraph [001], line 1) as shown in figure 1 comprising the detecting means (16 in figure 1) for detecting whether a specific object is included in an input image (paragraph [0010], line 6-8), (the examiner interpreted the specific object as the brightness or lightness of the area of the input image)

One of ordinary skill in the art would have clearly recognized the detecting device for detecting the specific area or object of the input image (paragraph [0010], line 6-8). Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to combine the image processing device and method of Yamada in the system of Nakamura et al. because such feature is capable of suppressing the noise contained in the digital image data by using a solid-state image sensor such a charge coupled device (CCD) (paragraph [0007], line 3-6), also this feature allow an image of high quality to be outputted constantly with high productivity and performance.

(2) Regarding claim 2:

Nakamura et al. further disclose the image-processing device where the setting means comprises:

histogram creating means for creating a histogram of the input image (paragraph [0092], line 1-2); and table creating means (paragraph [0086], line 3) that calculates a highlight, a shadow (paragraph [0092], line 4-5), and exposure conditions of the image

from the histogram (paragraph [0008], line 5-6) and that creates a lookup table for correction (paragraph [0086], line 3-8), based on the calculation results.

(3) Regarding claim 4:

Nakamura et al. disclose all the subject matter as in claims 1, and 2 above.

However, Nakamura et al. does not disclose the detecting means, which detects whether the specific object is included in the input image that has been corrected by the gradation correcting means as recited in claim 4.

Yamada teaches the image processing device as shown in figure 1 comprising the detecting means (16 in figure 1) for detecting whether a specific object is included in an input image (paragraph [0010], line 6-8), (the examiner interpreted the specific object as the brightness or lightness of the area of the input image that has been corrected by the gradation correction mean).

One of ordinary skill in the art would have clearly recognized the detecting device for detecting the specific area or object of the input image (paragraph [0010], line 6-8). Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to combine the image processing device and method of Yamada in the system of Nakamura et al. because such feature is capable of suppressing the noise contained in the digital image data by using a solid-state image sensor such a charge coupled device (CCD) (paragraph [0007], line 3-6), also this feature allow an image of high quality to be outputted constantly with high productivity and performance.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Nakamura et al. in view of Bang et al. (US 5,715,325)

Nakamura et al. disclose all the subject matter as in claim 1 above.

However, Nakamura et al. does not disclose that the specific device is a human face, and where the detecting means detects the position and the size of the region of the face as recited in claim 3.

Bang et al. teaches the image processing system where the specific object is human face (column 2, line 2), and where the detecting means detects the position (column 2, line 21-22) and the size of a region of the face (column 2, line 24-25).

One of ordinary skill in the art would have clearly recognized the human face as the specific object, where the detecting means detects the position of region of the face by identifying the top, bottom and sides of any possible head region, and the size of the bounding box (column 2, line 21-26), (the bounding box is interpreted to be as the region of the region of the face). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the system of Bang et al. where the system detects the position and the size of a region of a human face in the system of Nakamura et al. because such feature rapidly identifies the presence of a face in video image and then match the face to stored identification template, which could be used in surveillance systems such as airports and other sensitive places by implementing video cameras in different corners.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. in view of Morikawa et al. (US 5,194,946)

Nakamura et al. disclose all the subject matter as in claims 5 and 6 above.

However, Nakamura does not disclose the step of rotating the input image in response to a posture during photographing, where the posture being included in the photographic about the input image as recited in claim 9.

Morikawa et al. teaches the method where the input image is rotated in response to a posture during photograph (column 3, line 5-8)

One of ordinary skill in the art would have clearly recognized the reading of the input image by the scanner, which proceeds the rotating of the image by the rotary base receiver (column 11, line 64-65). Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to combine the method of Bang et al. where the input image is rotated in the system of Nakamura et al. because such feature is capable of performing full-automatic operation from reading of an original until output of an image (column 1, line 22-24) as well as improving of the efficiency of the scanning operation (column 18, line 51-52).

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. in view of Nakami (USPGPUB 2004/0234153)

Nakamura et al. disclose all the subject matter as in claims 5 and 6 above, and the method of determining the gradation correcting condition (paragraph [0085], line 1-3), (the examiner interpreted that the method of determining the first and second gradation correcting condition is the same)

However, Nakamura et al. does not disclose the method for determining the statistical value of the specific object region as well as the determining of the target value from the statistical value as recited in claim 10.

Nakami teaches a method where the statistical value of specific object is determined (paragraph [0065], line 12), (the examiner interpreted that the determining of statistics value based on the histogram includes the value of the specific object region), and the determining of target value from the statistical value (paragraph [0065], line 15-17), (the examiner interpreted that the adjusted of the tone curves, adjust the relationships between the input values and the output values which will determine the target value based on statistical values)

One of ordinary skill in the art would have clearly recognized the calculating statistic based on the generated histogram and the determining of target value based on statistic value (paragraph [0065], line 12-17). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system Nakami where the statistical value and the target value are determined in the system of Nakamura et al. because such feature the target value are based on certain range, so all the search of target value will be focused just in that appropriate range for every region of the input image that will make the image processing method faster and will improve the accuracy of an image (paragraph [0004], line2-4).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amara Abdi whose telephone number is (571) 270-1670. The examiner can normally be reached on Monday through Friday 7:30 Am to 5:00 PM E.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on (571) 272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300..

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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01/29/2007

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